

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT

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61

In the **PATENT APPLICATION** of:

Kaewell, Jr. et al.

Application No.: 09/356,845

Confirmation No.: 8408

Filed: July 19, 1999

For: PLURAL SUBSCRIBER SYSTEM
UTILIZING SYNCHRONIZED
TIMESLOTS ON A SINGLE
FREQUENCY

Group: 2631

Examiner: Tesfaldet Bocure

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Date: September 23, 2004

APPEAL BRIEF

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Commissioner for Patents
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Alexandria, VA 22313-1450

Sir:

Further to the July 19, 2004 Notice of Appeal (received by the USPTO on July 21, 2004), Applicant hereby submits this Appeal Brief.

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TABLE OF CONTENTS

ITEM	PAGE
(1) REAL PARTY IN INTEREST	3
(2) RELATED APPEALS AND INTERFERENCES	3
(3) STATUS OF CLAIMS	3
(4) STATUS OF THE AMENDMENTS	3
(5) SUMMARY OF THE INVENTION	3
(6) ISSUES	5
(7) GROUPING OF CLAIMS	5
(8) ARGUMENT	5
(9) CONCLUSION	8
 APPENDIX A - Pending Claims	 9-15

(1) REAL PARTY IN INTEREST

The real party in interest is the assignee of record, InterDigital Technology Corporation.

(2) RELATED APPEALS AND INTERFERENCES

No appeals or interferences are known which will directly affect or be directly affected by or have a bearing on the Board's decision in the present appeal. However, an Appeal under Appeal No. 2003-0660 occurred for an application (application no. 09/791,259, filed February 23, 2001, now U.S. Patent No. 6,711,223 B2) which was a continuation of this application.

(3) STATUS OF THE CLAIMS

Claims 11, 13-23, 25-27 and 29-32 are the subject of this appeal and are attached in Appendix A. No other claims are pending. Claims 11, 13-23, 25-27 and 29-32 were finally rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,879,581 (Schlosser et al., hereafter "Schlosser").

(4) STATUS OF THE AMENDMENTS

No Reply was filed after the May 18, 2004 Final Action.

(5) SUMMARY OF THE INVENTION

The present invention provides a telecommunication station and associated system, where the telecommunication station communicates with a base station and a secondary station using wireless transmissions. Application, page 12, lns. 18-26. The base station communicates with a plurality of stations. Application, Figures 10 and 11. The telecommunication station has a transmitter, which transmits telecommunication station synchronization information including the assignment of fixed periodic time slots to a plurality of subscriber units on a selected frequency. Application, page 6, ln.

12 to page 7, ln. 7 and page 14, lns. 6-7. At least two fixed periodic transmit time slots are for transmission from said telecommunication station and at least two fixed periodic reception time slots are for reception by said telecommunication station. Application, Figures 10 and 11. The telecommunication station synchronization information enables a transmit and receive timing of the secondary station to be synchronized to the telecommunication station. Application, page 8, ln. 9 to page 10, ln. 16. The assignment of time slots results in each of the plurality of subscriber units being assigned a separable slot. Application, Figures 10 and 11 and page 14, lns. 6-7. The transmitter also transmits a signal carrying information received from the base station on the selected frequency in a first assigned transmit slot and carrying information received from the secondary station on the selected frequency in a second assigned transmit slot. Application, Figures 10 and 11 and page 12, ln. 18 to page 13, ln. 29 and page 14, lns. 6-7.

The telecommunication station has a receiver, which receives the information transmitted from the base station on the selected frequency in a first assigned reception slot and base station synchronization information from the base station. Application, Figures 10 and 11 and page 8, ln. 9 to page 10, ln. 16. A timing of the secondary station is synchronized to the telecommunication station using the telecommunication station synchronization information. Application, page 8, ln. 9 to page 10, ln. 16. The receiver receives the information transmitted from the secondary station on the selected frequency in a second assigned reception slot. Application, Figures 10 and 11. Each of the plurality of secondary stations finds the transmissions and slots assigned to that secondary station. Application, page 8, ln. 9 to page 10, ln. 16. Using the telecommunication station for communications between the base station and secondary station is transparent to the base station and secondary station. Application, page 13, lns. 5-8. The primary station and the secondary station itself detects a frame timing from received signals and aligns its transmitting frame timing accordingly. Application, page 8, ln. 9 to page 10, ln. 16.

(6) ISSUES

- (1) Do claims 11, 13-23, 25-27 and 29-32 meet the requirements of 35 U.S.C. §103(a), as being patentable in view of Schlosser?

(7) GROUPING OF CLAIMS

The claims on appeal consist of one group. Claims 11, 13-23, 25-27 and 29-32 are in that group and claim 11 is the representative claim.

(8) ARGUMENT

Background

This application (U.S. Patent Application No. 09/356,845) was filed on July 19, 1999 and claims priority to U.S. Patent Application No. 08/798,973, filed on February 7, 1997, now U.S. Patent No. 5,930,297. That patent is a continuation of Application No. 08/588,073, filed on January 17, 1996, now U.S. Patent No. 5,625,653, which is a continuation of Application No. 08/347,835, filed on December 1, 1994, now U.S. Patent No. 5,495,508. That patent is a continuation of Application No. 08/104,322, filed August 9, 1993, which is a continuation of Application No. 07/438,618, filed November 20, 1989. That application is a continuation of Application No. 07/123,395, filed November 20, 1987, now U.S. Patent No. 4,935,927.

Issue (1): Do claims 11, 13-23, 25-27 and 29-32 meet the requirements of 35 U.S.C. §103(a), as being patentable in view of Schlosser?

Schlosser discloses a spacecraft which communicates with a plurality of data terminals using a time division multiple access (TDMA) format. The Schlosser spacecraft was equated to the primary station of representative claim 11 (telecommunication station of claims 15 and 19). However, the operation of the Schlosser spacecraft and primary station as recited in the claims are totally different.

Referring to claim 11, the primary station communicates with a base station and at least one other secondary station. Figure 13 of the application illustrates such an arrangement. The Schlosser spacecraft communicates between two of its data

terminals and not a base station. Schlosser does not disclose or suggest that one of its data terminals could be replaced by a base station. Furthermore, as described subsequently, such a substitution in Schlosser would not be operable anyway.

Claim 11 recites an assignment of “n transmission fixed periodic time slots... n reception fixed periodic time slots on a selected frequency” and “transceives a duplex telephonic communication ... on the selected frequency”. Schlosser does not disclose transmitting and receiving by a station over a selected frequency. Schlosser shows in Figures 2a and 2d a separate uplink and downlink frame format. The downlink frame is referred to as being continuously transmitted. See Schlosser, col. 5, lns. 38-40. Clearly, the uplink and downlink of Schlosser are on separate frequencies and the Schlosser spacecraft does not receive and transmit over a selected frequency.

Claim 11 recites the primary station “receiving base station synchronization information from a base station, wherein a transmit and receive timing of the primary station is synchronized to the base station using the base station synchronization information”. In Schlosser, the data terminal synchronize to the spacecraft, “[the data terminal] must be synchronized to the spacecraft downlink format”, Schlosser, col. 5, lns. 65-68, and, “[u]sing the spacecraft 100 as a time reference, the beginning of each uplink frame is assumed to coincide with the beginning of each downlink frame”, Schlosser, col. 6, lns. 7-9. Accordingly, the Schlosser data terminals synchronize to the spacecraft for both the uplink and downlink. The spacecraft, clearly dictates the frame timing, see Schlosser Figures 2a and 2d, and the spacecraft of Schlosser sends information to the data terminals in a downlink synchronization and control field, see Schlosser, col. 4, lns. 54-56.

Claim 11 recites, “the base station communicating with a second plurality of stations” and “the base station transmitting the base station synchronization information”. Schlosser does not disclose a base station or for that matter a data terminal communicating with a plurality of stations. Furthermore, Schlosser does not disclose the data terminals transmitting synchronization information, especially since the data terminals synchronize their uplink and downlink timing to the spacecraft.

Claim 11 recites, “the primary station and the secondary station itself detects a frame timing from received signals and aligns its transmitting frame timing accordingly”. Although the Schlosser data terminals synchronize their frame timing to the spacecraft, the spacecraft does not synchronize its frame timing to the data terminals. The Schlosser spacecraft dictates the frame timing to the data terminals. See Schlosser, col. 5, ln. 65 to col. 6, ln. 15.

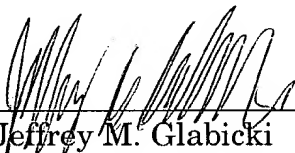
Claim 11 recites, “using the telecommunication station for communications between the base station and secondary station is transparent to the base station and secondary station”. Clearly, since all of the data terminals communicate and synchronize directly to the spacecraft, the use of the spacecraft is not transparent to the data terminals. In the present invention, the secondary station may be communicating with the base station directly or via the telecommunication station without being able to tell whether it is directly communicating with the base or telecommunication station.

(9) CONCLUSION

For the reasons stated above, pending claims 11, 13-23, 25-27 and 29-32 meet the requirements 35 U.S.C. §103(a). Accordingly, the final rejection should be reversed. After reversal, Applicant respectfully requests that the pending claims be passed to allowance.

Respectfully submitted,

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